

REMARKS/ARGUMENTS

Claims 1-7 are canceled. Claim 8 depends from claim 9. New claims 20-23 (based on canceled claims 2-5) are added to maintain the subject matter of earlier claim 8. No additional filing fee is due. (The original filing fee included 41 total claims. There are now 32 claims pending, including multiple dependencies).

The cancellation of claims 1-7 renders their rejection moot.

Applicants note that Ogawa et al. (JP 2000-312253) has a publication date of November 7, 2000. The present application claims priority of JP 2000-114912 as of April 17, 2000 and the priority of JP 2000-127191 of April 27, 2000. Since the priority claim of the present application predates Ogawa et al., applicants wish to rely on their priority dates to avoid this reference. Annexed hereto are accurate translations of each of these documents along with a sworn statement of accuracy.

Concerning support in the sworn translations, applicants refer to the application filed April 17, 2000, especially at

page 5 paragraph 0014-0016 and the drawings attached thereto. In the application filed April 27, 2000, there is relevant disclosure, again at page 5, in particular in paragraph 0012-0015. Also the examples and drawings therein.

The claims are rejected over Ogawa et al. (JP 2000-312253) in view of Osada et al. (USP 5,703,557) and further in view of Yoshida et al. (USP 5,827,445).

Withdrawal of this rejection based on applicants' priority claim is respectfully requested.

In addition it is noted that the present invention is an earphone system having a noise suppressor made of a magnetic material which is operable to remove noise by suppressing high-frequency using a unique principle:

High-frequency current, including noise which runs through a cable, produces a magnetic field. The energy of the magnetic field is converted into thermal energy by the invention and the thermal energy is given off outside. In this way, high-frequency current and noise is suppressed in a form which does not induce noise into other electrical circuits.

In the response to Arguments, the Examiner noted that the conversion of the magnetic field energy to heat is not described

in the specification or included in the claims. Reconsideration is respectfully requested in view of the following:

Although the explanation of converting the energy of the magnetic field into thermal energy is not specifically described in the present application it is inherent in the structure (the explanation of suppressing unnecessary high-frequency current running in a signal cable is described at page 3 line 10-12 of the present application). That is, it is not a feature that is claimed, it is what happens when the invention is operated and thus should be considered as an inherent property (please see discussion of inherent advantages in the MPEP §706.02(f)).

A major advantage of the present invention as compared with the art in general is that, for the present invention, the noise removed by the present invention is converted into thermal energy and the thermal energy which is given off does not induce noise into adjacent circuits as electrical noise.

The present invention has the advantageous effect that there is no degradation of adjacent or nearby circuits by stray electromagnetic noise given off by the art devices for suppressing noise, because of the selection of materials capable of suppressing high-frequency current, which has large loss in

attenuation characteristic of high-frequency area and converts the energy of the magnetic field to thermal energy in high-frequency area.

None of the cited art shows the claimed invention or other means for removing noise as thermal energy.

Ogawa discloses an earphone of PHP or cell phone with an attached noise filter and discloses that the noise filter consists of LC filter or ferrite beads. The purpose of Ogawa is to prevent noise from running to the circuit by making use of mismatch for impedance of an earphone cable occurred by attaching the noise filter to the cable. The noise is not fundamentally deleted.

Osada prevents noise from passing through the circuit by making use of a mismatch for impedance of a cable produced by clamping a ferrite case to the cable (similar to the method and principle of operation of Ogawa et al., as discussed above). Again, noise is not fundamentally deleted.

Hence, there is difference between the manner of operation inherent in the present invention and that of Ogawa or of Osada. This difference is due to the differences between the material and structure of the present invention and that of Ogawa or of Osada.

It is therefore submitted that the present invention is not shown by Ogawa or Osada nor can it be derived from the teaching in Ogawa or Osada, taken alone or in combination with the other references.

As discussed in detail above combined Ogawa and Osada fail to show or suggest the present invention. Combining Yoshida does not bridge the differences or otherwise render the claims obvious.

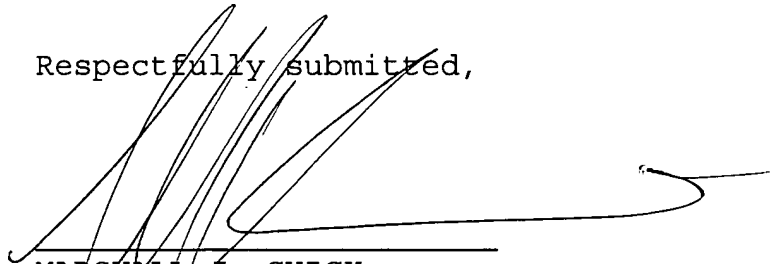
Yoshida et al. disclose a composite magnetic article for use as an electromagnetic interference suppressing body, which comprises soft magnetic powder including Fe-Al-Si alloys or Fe-Ni alloys, etc. But Yoshida et al. do not disclose the use of the composite magnetic article comprising the soft magnetic powder including Fe-Al-Si alloys or Fe-Ni alloys to an earphone system. In addition, they do not disclose the art and the method in which the composite magnetic article comprising the soft magnetic powder is applied to high-frequency current suppressor of an earphone system.

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In view of the above, it is submitted that the present invention is not shown or suggested by the cited art. Withdrawal of the rejections and allowance of the application are respectfully requested.

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